

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022877**Date Inspected:** 06-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China**CWI Name:** Sha Zhi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

Bay 4

This QA Inspector observed the following work in progress for Bay 4.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhang Ya Xu.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Traveler Rail

PCMK: 3025TR2-002-005,006

Welder: 066763

WPS-B-T-2231-ESAB

PCMK: 3026TR1-001-019

Welder: 050977

WPS-B-T-2231-ESAB

PCMK: 3023TR2-002-003

Welder: 214945

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WPS-B-T-2231-ESAB

Heat straightening of PCMK, 29TR1-001-001~012, under approved Heat Straightening procedure, HSR 1 (B) 10268, The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Zhang Ya Xu. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 10mm.

Bay 8

This QA Inspector observed the following work in progress for Bay 8.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Huang Min.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Saddle Housing sub-assembly

PCMK: SA7535-005/006

Welder: 054459

WPS-B-T-2231-ESAB

PCMK: SA7535-054

Welder: 500405

WPS-B-T-2231-ESAB

Bay 9

This QA Inspector observed the following work in progress for Bay 9.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Huang Min.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Traveler Rail

PCMK: 3012TR3-001-005

Welder: 059378

WPS-B-T-2231-ESAB

PCMK: 3012TR4-001-008

Welder: 059443

WPS-B-T-2231-ESAB

Bay 10

Heat straightening of PCMK, 29TR1-004, 26TR2-022, under approved Heat Straightening procedure, HSR 1 (B) 10186, The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Li Jun. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3

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applications. The distortion that was previously measured and recorded on the HSR was Maximum 4mm.

### Bay 11

This QA Inspector observed the following work in progress for Bay 11.

ZPMC was using the Shield Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Yu Dong Ping.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector

Components: Tower Lift 6

PCMK: SSD1-DPSA6-5-18-33

Welder: 040611

WPS-B-P-2112

Components: Traveler Rail

PCMK: 28TR1-020-003

Welder: 044541

WPS-B-P-2212-TC-U5b

PCMK: 28TR1-020-012

Welder: 046764

WPS-B-P-2212-TC-U5b

PCMK: 28TR1-020-016

Welder: 046714

WPS-B-P-2212-TC-U5b

PCMK: 32TR1-001-009

Welder: 047769

Report: B-WR 20595

WPS-345-SMAW-2G (2F)-Repair

PCMK: 32TR1-002-009

Welder: 002354

Report: B-WR 20595

WPS-345-SMAW-2G (2F)-Repair

### Trial Assembly Yard

This QA Inspector observed the following work in progress for Trial Assembly Yard.

ZPMC was using the Shield Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhan Hai Feng.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector

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Components: 13AE  
PCMK: SEG3007AH-144,145  
Welder: 068924  
Report: B-WR 20568  
WPS-345-SMAW-4G (4F)-FCM-Repair-1

PCMK: SEG3007AH-112  
Welder: 200113  
Report: B-WR20568  
WPS-345-SMAW-4G (4F)-FCM-Repair-1

Components: 13AW  
PCMK: SEG3013AA-110,116  
Welder: 047864  
Report: B-WR 20525  
WPS-345-SMAW-4G (4F)-FCM-Repair-1

PCMK: SEG3007AH-144,145  
Welder: 068924  
WPS-345-SMAW-4G (4F)-FCM-Repair-1

This QA Inspector observed the following work in progress for Trial Assembly Yard.  
ZPMC was using the Flux Core Arc Welding (FCAW) process.  
ZPMC QC is identified as Zhan Hai Feng.  
Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: 13AE  
PCMK: SEG3007Q-164  
Welder: 050242  
WPS-B-T-2231-ESAB

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Shin,DJ	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley,Ken	QA Reviewer

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